FRED MILLAR, Ph.D.
915 S. BUCHANAN ST. APT. 29
ARLINGTON VA 22204
TEL: 703-979-9191 e-mail: fmillar@erols.com

REPORT FOR WILL COUNTY ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS) FROM THE SURFACE TRANSPORTATION BOARD ON THE CANADIAN NATIONAL'S EJ&E PROPOSAL (STB FINANCIAL DOCKET 35087) September 19, 2008

INTRODUCTION:

A. Canadian National Railway (CN) has applied to the US Surface Transportation Board (STB) for approval of a purchase of a small railroad. The transaction is intended to bring a massive increase of rail freight cargoes through suburban Chicago communities on the Elgin Joliet & Eastern Railway Company line (EJ&E), which CN aims to purchase for $300 million (and spend another $100 million on rail capacity improvements). STB is doing an environmental review of the CN proposal.

The CN purchase would bring greatly increased chemical ("hazmat") railcar risks, both from accidental and from terrorist-caused potential releases to the EJ&E communities (and possibly later also to the downtown Chicago communities), which risks so far have not been discussed vividly in public forums. CN's EJ&E proposal would bring (for starters) an estimated *10-fold increase in hazmat on the northern half of the EJE line, including many communities in Will, DuPage, Cook and Lake Counties, and 7-fold increases on the southern half of the EJ&E line.* [as seen in the map from the STB's current Draft Environmental Impact Statement, p. 4.2-29] [1]

The area is a top-ranking High Threat Urban Area (including the EJ&E line communities), and received $51 million in federal homeland security funding in Fiscal Year 2006 from the US Department of Homeland Security.
The DEIS fails to thoroughly consider the increased risk of potential accidents and terrorist use of toxic gas cargoes due to the shipping of the most dangerous types of hazmat shipments through the Chicago Metropolitan Area.
After 9/11, the 90,000 US shipments annually of ultrahazardous poison gas cargoes like chlorine and ammonia, in urban transport and railyard storage, are a top-level worry for citizens, industry and homeland security officials. Any major urban railyard switching hub is at especially high risk, especially those like Chicago's which are notoriously congested and where long "dwell times" for dangerous railcars is a top concern for federal officials. [2] In 2005 a former top Bush Administration homeland security official testified in Congress that the urban storage and transport of

ultrahazardous chemicals are "the greatest [homeland security] vulnerability in the nation," and that virtually nothing has been done to reduce the huge risks. [see Appendix A] The transportation vulnerability remains just as great in 2008.

The STB's DEIS does not include serious consideration of hazmat accident consequences or potential hazmat terrorism. The DEIS defers throughout to the CN's statement of "Purpose and Need" for the purchase of the EJ&E. As seen in the DEIS discussion of one suggested project alternative:

p. 2-65 2.5.1 Expanded Trackage Rights

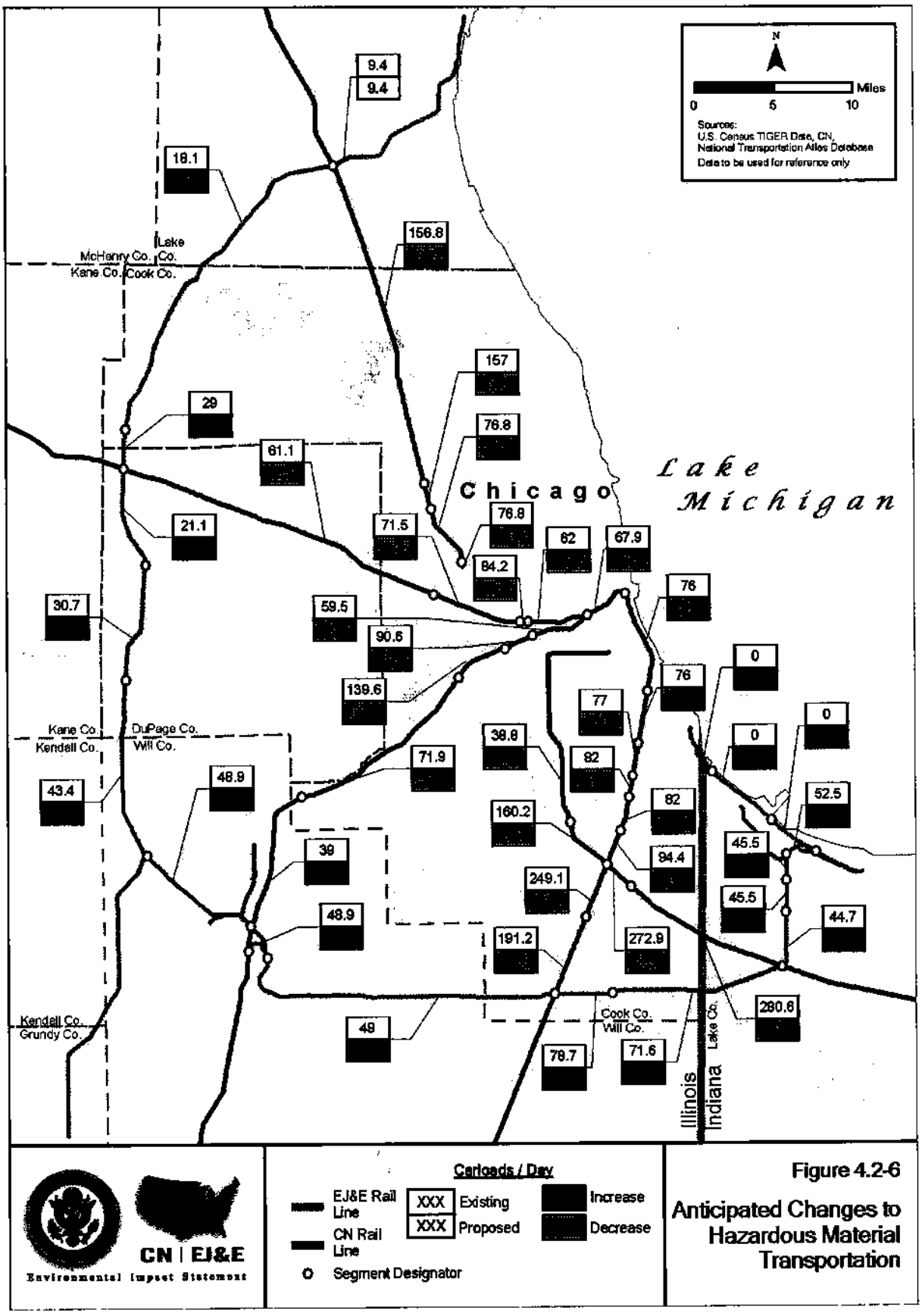
During the scoping period, several commenters suggested that expanded trackage rights on the EJ&E rail line could be an alternative to the Proposed Action. Specifically, the commenters note that, if EJ&E were to grant expanded trackage rights to CN, the result would be to allow CN to increase its operations on the EJ&E line. However, expanded trackage rights are not a reasonable and feasible alternative because it fails to meet the purpose of and need for the Proposed Action. Additional trackage rights would not provide CN with the control over the EJ&E rail line that it is seeking through the Proposed Action. Expanded trackage rights also would not allow CN to control and increase its use of Kirk and East Joliet yards or to decrease the use of CN's Glenn, Hawthorne, and Markham yards and the BRC Clearing Yard, and CN would not be able to consolidate rail car classification activities at Kirk Yard.

In short, as the Applicants have explained (Applicants 2007a):

- *An independently-owned EJ&E would have no incentive to invest the significant capital required for the capacity and connection improvements that would provide CN with a continuous rail route around Chicago and that would connect the five CN rail lines radiating from Chicago, Illinois.*
- *Expanded trackage rights would not give CN control of Kirk Yard.*
- *Separate ownership of the EJ&E rail system would not ensure coordinated operations over both CN and EJ&E rail lines to maximize overall efficiency in the interest of customers using both railroads.*

For these reasons, expanded trackage rights are not a reasonable and feasible alternative to the Proposed Action.

STB's Section on Environmental Analysis (SEA) has provided a DEIS map which shows clearly the expected shifts of hazmat shipments from various segments of the downtown CN lines to the EJ&E line, ranging from seven- to ten-fold increases along the latter:


N
Miles
0
5
10
Sources:
U.S. Census TIGER Data, CN,
National Transportation Atlas Database
Data to be used for reference only
9.4
9.4
18.1
156.8
Lake
McHenry Co.
Co.
Kane Co.
Cook Co.
157
29
76.8
61.1
Chicago
Lake
Michigan
21.1
71.5
76.8
62
67.9
84.2
76
30.7
59.5
90.6
0
76
139.6
77
0
0
Kane Co.
DuPage Co.
Kendall Co.
Will Co.
38.8
71.9
82
52.5
43.4
48.9
82
160.2
45.5
39
94.4
249.1
45.5
48.9
44.7
191.2
272.9
Cook Co.
Will Co.
280.6
Kendall Co.
Grundy Co.
49
79.7
71.6
Illinois
Indiana
Lake Co.
CN | EJ&E
Environmental Impact Statement
Carloads / Day
EJ&E Rail Line
CN Rail Line
Segment Designator
XXX Existing
XXX Proposed
Increase
Decrease
Figure 4.2-6
Anticipated Changes to Hazardous Material Transportation

B. **STB's Draft Environmental Impact Statement, dated July 25, 2008** http://www.stb.dot.gov/decisions/ReadingRoom.nsf/0/4f333b3e805efd2f852573b6006e6524?OpenDocument] **is severely deficient in its consideration of potential hazardous materials impacts and risks** :

1. *Perhaps most revealingly, the DEIS does not provide any specific data on the most dangerous hazmat cargoes or on Worst Case Scenario information that could be helpful to citizens* in assessing the risks of increased hazmat shipments. On the contrary, the STB's DEIS uses various assumptions and methods to deliberately downplay the serious hazmat risks and obscure the real alternatives. [In a significant precedent, the STB with similarly skimpy methods summarily dismissed environmental and safety concerns and approved the building of a new 13-mile railroad for chemical company shipments through Houston suburbs. *STB produced a Draft EIS and a Final EIS, for the 2002-2004 "Bayport Loop" project in Houston Texas (STB Finance Docket 34079). Sustained Houston suburban residential opposition eventually killed the proposal by eliciting a Representative Tom Delay-imposed political solution in which chemical companies and railroads* ***compromised on sharing the existing rail lines and splitting the costs*** *(not exactly a model public policy process, but an* ***important clue to what could resolve the EJ&E issues in the Chicago region)***. [3]

In the Bayport Loop case, the STB FEIS officially concluded that the hazmat risk of the proposed new rail line to suburban residents was "negligible". *In this Bayport Loop process,* ***many severe deficiencies*** *in STB's scope, approach, and method are apparent to an experienced hazmat professional. [These are not deficiencies in legal interpretations, necessarily, although in the Bayport Loop decision STB reveals a highly debatable and key interpretation of their alleged statutory lack of ability to force the railroads "in the public interest" to share rail lines. See p. 2-17, Bayport Loop DEIS]*] [4]

2. *The STB DEIS (Chapter 4 and Appendix 3) calculates the Chicago-area shifts in probabilities of hazardous materials accidents under the EJ&E purchase proposal, but studiously neglects to calculate any Worst Case Scenarios, or any serious consequences at all, of potential chemical rail tank car releases.* The DEIS lumps all hazardous materials cargoes together, from syrup to chlorine gas, in calculating probabilities of release "incidents".

3. *The DEIS operates with seriously and unnecessarily self-limited scope and time lines, which distorts its analysis.* For example, it summarizes (p. 4.2-33) the 6 "serious" hazmat railcar events that [out of Chicago's 7 major railroads and several smaller ones] only CN and EJ&E reported in the Chicago area, and over a very short period of 2003-2007, with only 89 people evacuated total. The DEIS ignores more serious local chemical railcar releases earlier, including the one leading to the classic tort case known as "Indiana Harbor Belt Railroad". And (p. 4.2-36) the DEIS is summarily dismissive, without even offering any argument, in concluding that future hazmat releases will be minor.

4. One main factor in the DEIS's dismissal of hazmat risk is its basic stance that the CN purchase merely would transfer the impacts of rail cargoes from downtown Chicago to less-populated suburbs (4.2-38). *The DEIS summarily*

dismisses any other routing alternatives as basically not giving CN what it desires. The DEIS virtually, without discussion, accepts CN's version of a "regional railroad map". CN and STB agree in narrowing the focus of analysis (with no larger regional map provided in the DEIS) as including only the two main routes through the Chicago metro area:
http://www.cn.ca/about/EJE/pdf/regional-railroad-map.pdf

5. The DEIS discusses very briefly (p. 3.2-6) and "concluded" without supporting evidence (p. 4.2-37) that *the existing regulatory system, industry best practices, and emergency response regulations and procedures should be adequate* for protection from hazardous materials accident risks, but neglects any serious assessment of the regulations, practices, or regional and local emergency response capabilities.

6. *As if 9/11 and the subsequent national debate on rail hazmat terrorism risks had never happened, the DEIS ignores rail hazmat terrorism risks almost completely. [The sole mention of any terrorism-related issue is in a tossed-in four sentences in the DEIS Executive Summary paragraph (p. ES-39) that outlines the new federal rail hazmat routing regulation which became effective June 1, 2008. SEA recommends as a mitigation that railroads comply with the regulation, but provides no discussion of the need for protective re-routing, the potential impacts for Chicago area railroads, the need for local governments to participate in analysis and selection of routes (not currently allowed under the regulation), etc.]*

Terrorism risk, however, is one of the most compelling reasons to investigate alternative rail routes well around the Chicago Metro Area. Since the 9/11 attacks, the US public and many public officials have re-assessed the risks of pre-positioning huge poison gas tank cars in major target cities and found them unacceptable. Ten major target cities, including Chicago, and two states (NY and TN) introduced re-routing ordinances, and twenty-five major media reports showed no effective security in the North American rail system. [5]

In a recent federal appeals court case, the court ruled that agencies could no longer ignore the terrorism-related risks of nuclear [and by implication, other ultrahazardous] activities: *San Luis Obispo Mothers for Peace v. Nuclear Regulatory Com.* (9th Circuit 2006) 449 F.3d 1016 (failure of the EIS to discuss terrorist risk related to nuclear plants rendered the document legally inadequate).

This report will focus on issues in the DEIS related to content, methodology and miscellaneous questions.

I. CONTENT:

[The STB Draft Environmental Impact Study is at

http://www.stb.dot.gov/decisions/ReadingRoom.nsf/0/4f333b3e805efd2f852573b6006e6524?OpenDocument]

a. **The DEIS should have considered all plausible and available alternatives: including especially CN's potential for routing of some portion of its medium- to long-range North-South and East-West hazmat through cargoes on farther-out rail lines skirting well around the crowded Chicago metropolitan area, to promote both disaster prevention and counter-terrorism.** ***Such consideration falls within the "public interest" mandate in the STB charter.***

This does not involve suggesting that CN has to construct or buy these "safer and more secure" rail lines, but that CN **simply utilize the industry's normal kinds of interchange and trackage rights agreements with the other railroads in the region. Interchanges** are the life-blood of the North American railroad industry, utilized by railroads more than 6.5 million times a year in the US for normal commercial purposes.

Non-target, hazmat risk-reduction rail lines well outside the Chicago target area are available as alternatives -- such as those through Kankakee, Streator, Buda, etc., as we will outline briefly here. **The DEIS should have analyzed for each of these the environmental impacts, especially the probability and consequences of hazmat releases by accident or terrorism, on existing lines which in many cases traverse less populated areas and skirt around major target cities.**

Instead, the DEIS **summarily dismisses, without any analysis and with clearly misleading assertions regarding right of way (ROW) and hazmat cargoes**, the idea of a rail route well around Chicago.

> *"p. 2-69 Section 2.5.4 Construction of a Bypass*
> *During the scoping period, members of the public suggested that the Applicants construct or re-route trains to a bypass "outside of the EJ&E [main] Line in Northern Illinois, well outside the greater Chicago metropolitan area" as an alternative to the Proposed Action (Village of Barrington 2008).*
>
> *Restructuring the Proposed Action in this manner would not satisfy the purpose of and need for the Proposed Action for the following reasons:*
>
> *• The Applicants would not gain access to Kirk Yard, one of the Proposed Action's primary purposes.*
>
> *• A bypass would be far more expensive in terms of land acquisition and rail construction.*
> *It would add route miles instead of using available, currently underutilized route miles.*
>
> *• A bypass would not avoid or minimize potential environmental effects.* ***Rather, a bypass would only serve to move environmental effects from the EJ&E rail line to the area around the bypass. Moreover, bypass construction would directly affect more land than the area around the EJ&E rail line because ROW for the bypass would need to be acquired. Therefore, a bypass would be more environmentally damaging than the Proposed Action, which would largely involve use of existing railroad ROW and rail***

yards.

For these reasons, SEA does not consider construction of a bypass to be a reasonable and feasible alternative and has eliminated it from detailed study."

After the 9/11 attacks, protective rail re-routing is an urgent issue for the Chicago area. In 2005 a Chicago City Council Aldermen proposed an ordinance on hazmat re-routing, and the subsequent hearing garnered Tribune and Sun-Times coverage.[6] In the hearing the railroads estimated that fully 65% of their cargoes into Chicago railyards were through shipments with no origin or destination in the Chicago area, therefore the shipments could go around Chicago.

Arguments for the "public interest" rationality of consideration of further-out alternative lines include:

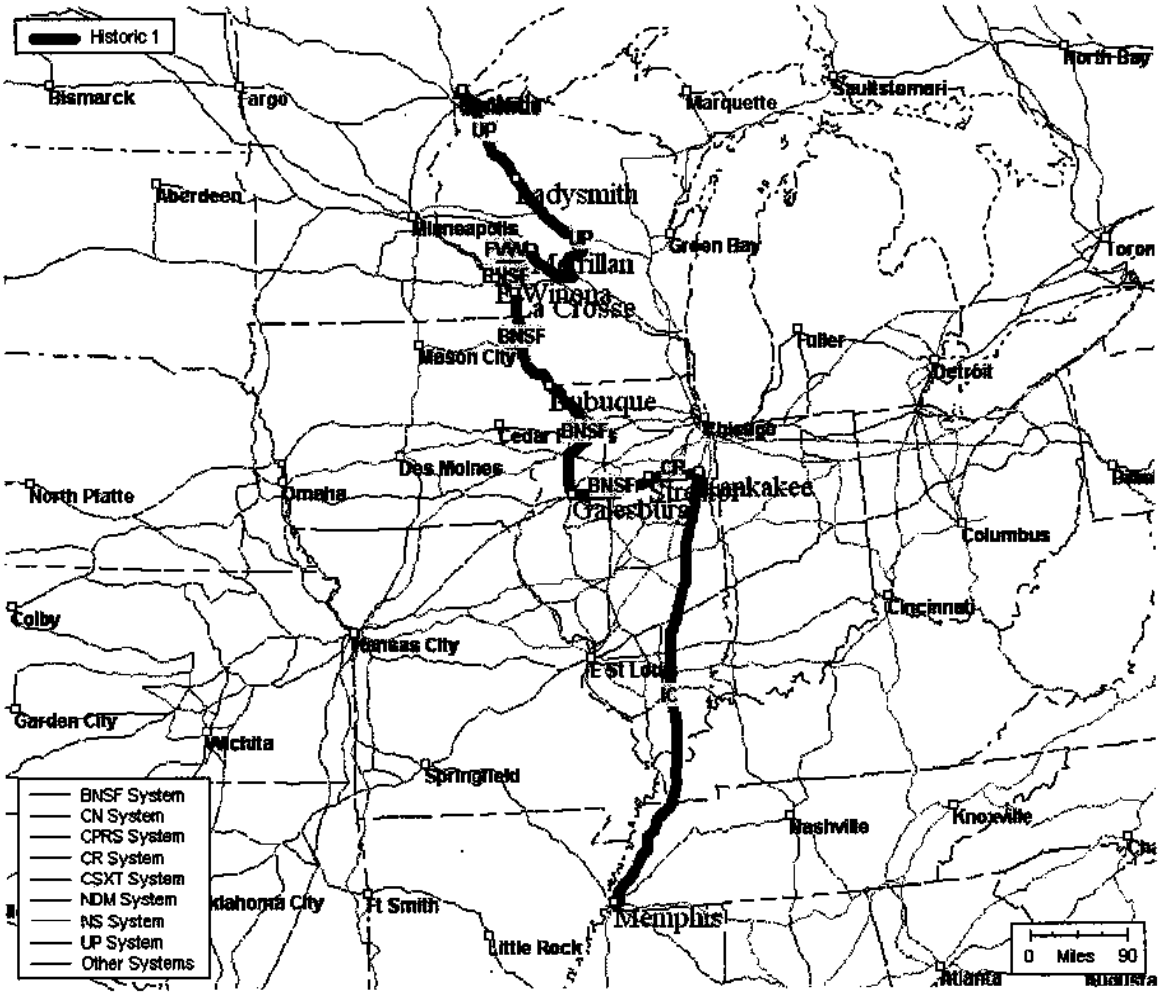
1. The current serious congestion in Chicago's railyards
2. The projected future rise in rail freight demand and even more congestion
3. The current efforts by major railroads to find ways around Chicago, e.g., by using other hubs such as East St. Louis or Memphis.
4. The historical recognition of the need for rational regional freight planning – at least as early as the venerable 1909 Plan of Chicago by Daniel Burnham and Edward Bennett, which advocated relocating freight operations to provide space for Chicago to grow, relieve congestion and improve the quality of life (cf. "The Metropolis Freight Plan Technical Report", 2004, p. 58, Metropolis 2020.)

There are existing, alternative rail routes, well around the Chicago area, which under the National Environmental Protection Act (NEPA) the DEIS should have considered, instead of limiting the choices of routing to only two: the downtown Chicago lines and the EJ&E suburban loop. Major railroads are fully aware of the alternatives and using many of them. [See map below for one example]

The US railroads use railcar interchange agreements with each other an estimated 6.5 million times annually. **Major railroads announced some time ago that they were already signing interchange agreements to use existing lines for re-routing much freight to avoid Chicago's notorious rail congestion [see Journal of Commerce article, Appendix B]**.

Both for a sustainable national freight flow pattern and for reducing terrorism and accident hazmat risks, major new freight flows should be directed well outside the Chicago Metro Area. The EJ&E line communities are within Metropolitan Chicago, not far enough outside the downtown area to provide any serious protection from terrorism. An even moderately successful terrorist attack, releasing a deadly cloud from even one hazmat poison gas railcar anywhere along the EJ&E line, will surely generate the worldwide headlines terrorists desire, **"Terrorists attack Chicago!"** [NOT "Terrorists attack Joliet!" or "Terrorists attack Matteson!"], while instilling fear and inflicting economic harm.

MAP-- MEMPHIS-DUBUQUE-DULUTH



MAP-- MEMPHIS-DUBUQUE-DULUTH: This map shows existing alternative rail routes around Chicago – only one example of safety-and security-conscious rail routes on major carriers, avoiding St Louis, Chicago, Milwaukee and Minneapolis . Industry databases show that large gains in safety and security are possible in many cases, when carriers interchange cargoes with each other, with only a minimal increase in transportation distance. Such interchanges occur in the US about 6.5 million times a year, according to the BNSF railroad. But railroads have become very profitable in recent years, in part by concentrating their freight traffic on lines that go through major cities and urban switchyards. Railroads have been resistant to any level of government mandating such interchanges for safety or security-- even for reducing terrorist threats to major target cities. Railroads have said they do not wish to give over any of their hard-won freight business to their competitors.

Other major rail routes run diagonally between Canadian cities like Regina and Winnipeg to US heartland cities such as Memphis and New Orleans without going through Chicago, as can be seen on any North American rail map, but these routes involve

interchanges with US rail companies or with CN's competitor Canadian Pacific. CN clearly wants the EJ&E link to complete its own, wholly-owned transcontinental network to connect seamlessly its Canadian and US operations. [7]

Railroads and chemical companies are already using available alternative routes, both safer and more secure, to go well around the Chicago Metro Area and other High Threat Urban Areas. Alternative routing could dramatically reduce the risks of the proposed CN transport from Asia through to the heartland of the US. We will provide here some descriptions of "Chicago avoidance routes". These alternative and safer routes can be traced using various rail atlases, CD interactive rail routing databases, and industry computer programs for hazardous materials routing-- showing routes that connect, some avoiding major cities and some going through.

The DEIS should have seriously considered regional and national routing alternatives to the Chicago-area routes, using computer rail (and truck) routing databases available for this purpose from private industry consultants such as PC HazRoute from ALK Inc., TRAGIS from US DOE for nuclear waste shipments, etc.

A. **The North-South route alternatives around the Chicago Metro Area:**

1. A **Memphis to Minneapolis** route can illustrate some existing and feasible N/S routes-- either through Chicago or around Chicago; some routes through Chacago's Markham Yard and some farther west, through or around St Louis, or South Pekin or Galesburg, then through either La Crosse or Mason City to Minneapolis.

2. A **Memphis-Dubuque-Duluth** route provides an excellent safety and security oriented route, notably avoiding the key target cities of St Louis, Chicago and Minneapolis. It involves coming north to Kankakee, west to Galesburg, north through Dubuque into WI, north through Ladysmith WI to Duluth.

3. A **Dubuque-Duluth** detail route can show a way of jogging the route east to avoid Minneapolis, e.g., through Stevens Point and Ladysmith WI.

4. The **Memphis-Kankakee-Galesburg-Minneapolis-Duluth** route is one of the most reasonable safety and security conscious N/S rail routes that avoid Chicago.

5. Another possible route begins with the **UP route** (used often with hazmat cargoes from the Gulf Coast to Chicago) through Watseka, then north to Kankakee, west to Streator-Ottawa-Buda, then north through Nelson-Rochelle-Rockford- and into WI at Beloit.

B. **The East-West routes around Chicago** are far easier to see, on any national rail map. In general, alternatives go either through Chicago or far south of the Chicago Metro Area using a number of alternative routing possibilities.

For example, we can trace a sample safety and security conscious route (avoiding major target cities using various rail carriers) from arbitrary origin and destination such as Columbus, Ohio to Salt Lake City, Utah:

- In Ohio: Columbus-Springfield-Ansonia
- In Indiana: Muncie-Frankfort-Lafayette
- In Illinois: Danville-Momence-Kankakee-Streator-Galesburg
- In Iowa: Burlington-Ottawa-Creston-Red Oak
- In Nevada: Fremont-Central City-North Platte- Bushnell
- In Wyoming: Cheyenne-Evanston
- In Utah: Ogden-Salt Lake City

This route avoids Chicago, St Louis, Kansas City, Omaha, Des Moines and Denver.

A national routing alternative analysis may serve, not only for poison gas cargoes like chlorine and ammonia (90,000 shipments annually), but also in discussions with the US Department of Energy regarding the routes it plans to use (currently DOE plans to use "a suite of routes" "mostly rail" through major cities) for the 30- to 50-year flow of nuclear waste shipments to Nevada's Yucca Mountain waste site.] [8] The US railroads have been discarding less profitable rail lines for decades, since deregulation in 1980, so remaining lines are very likely to be better-maintained than those discarded. But the consequences of serious releases can still be lessened.]

At least a few railroads and chemical shippers, worried about catastrophic risks of routing through cities, and their potential liability for death and injury, have **begun quietly skirting Chicago** and perhaps other major target cities. Quiet (and usually secret) corporate agreements, not government mandates, are re-routing some of the ultra hazardous cargoes around the traditional railroad hub city. This security-related re-routing goes beyond the ongoing major railroad efforts, announced in 2006, to skirt Chicago's congested rail yards and instead to use alternative hubs in East St Louis, Memphis, and New Orleans.

For example, the President of the **Chicago South Shore & South Bend [freight] Railway** reported in April 24, 2008 testimony before the US Surface Transportation Board (STB) that, under its "common carrier" obligation, his railroad used to pick up an eastern Canada manufacturer's chlorine gas tank cars in Chicago and deliver them, at an economic loss due to insurance and other risk-related costs, to a customer in Indiana. But after 9/11 he was advised that a large chlorine release in Chicago "could create claims exceeding $5 billion". He and the Canadian National Railway arranged, at some cost, to modify the route in order to avoid Chicago with about 30% of the chlorine cargos and interchange them in a rural area nearer the chlorine-using customer. This risk reduction could be temporary, he points out, since if another chlorine-producing company as far away as Vancouver, British Columbia drops its chlorine price to secure a deal with the US customer, Canadian National might resume delivering all the chlorine cargoes to the South Shore through Chicago, despite the recognized and uninsured risks. No government agency's approval is needed on such corporate arrangements.

Another post-9/11 risk reduction example: **Dow Chemical**, a major chlorine producer and shipper, used to supply its Midland MI plant with chlorine railcars from its own Fort Saskatchewan Alberta plant about 1200 miles away. The most likely route would have passed through the target cities of Minneapolis-St Paul, Milwaukee and Chicago. Dow officials in 2008 told state officials the company had decided for homeland security reasons to shift its supplier, and now brings chlorine railcars to Midland from a West Virginia facility (not owned by Dow) only some 400 miles away. [In 2002 the Dutch Government and chlorine manufacturer Akzo agreed to end chlorine transportation by 2006; no other nation has done so yet.] [9]

b. The DEIS should have considered terrorism-caused (as well as accidental) hazmat releases and their potential impacts on all the plausible alternative lines, as well as on the downtown Chicago and EJ&E lines. See the (inadequate but significant) precedent in a previous STB case ("Bayport Loop" case):
http://www.stb.dot.gov/stb/environment/key_cases_bayport.html

After the 9/11 attacks, Congress amended the federal rail safety laws (and specifically including those for hazardous materials safety) to reflect the "new normal" reality: "...safety, including security..." -- so the federal safety laws could easily be modified as needed to cover security issues. **The DEIS consistently ignores rail hazmat terrorism issues, including any likely impacts for emergency planning, property values, etc.**

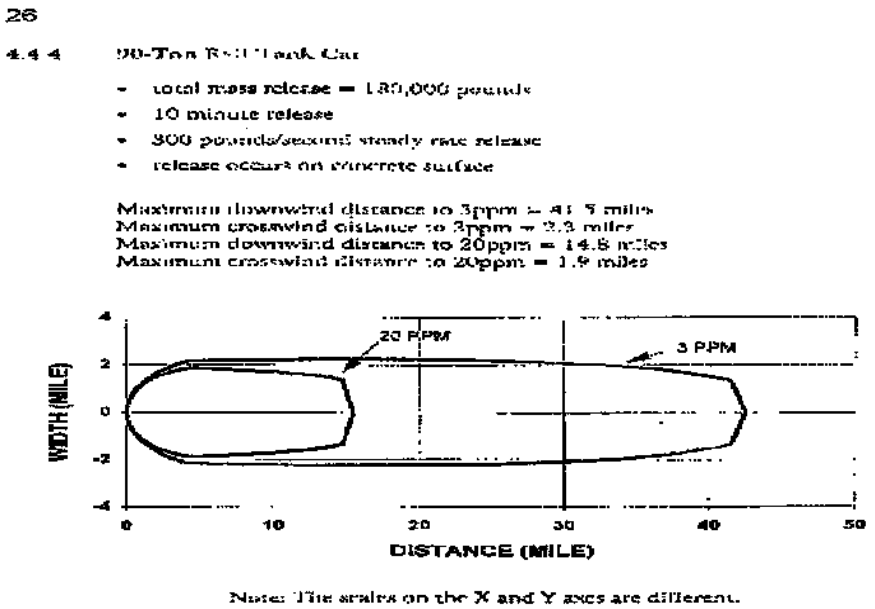
There is continued widespread post-9/11 public concern, including in the Chicago area, about the terrorism threat posed, especially by poison gas [TIH], rail shipments through major cities. As CSXT Railroad suggested in the federal rulemaking docket [10], the public has begun to think anew since 9/11 about what is an acceptable risk:

"The support of the public, and of many policy makers, has greatly eroded since 9/11. Now the railroads are harshly criticized for transporting these [TIH cargoes] ...Our company's reputation has been assailed...[and] vilified in the media. ***TIH cannot simply continue to move by railroad indefinitely...Even if the potential for ruinous liability were somehow erased, the widespread social disapproval of TIH transport by rail would remain."*** [CSXT comments to the US DOT rail security rulemaking docket (2/27/07)] http://dmses.dot.gov/docimages/pdf101/456287_web.pdf

After 9/11, eleven major US cities (including Chicago) introduced re-routing ordinances (all based on the DC ordinance from 2005), and. Similar re-routing bills were introduced in the Tennessee and New York state legislatures.

c. The DEIS should have considered the consequences of potential hazmat releases, especially the Worst Case Scenarios from toxic gas cloud releases. According to the Chlorine Institute, the gas cloud from one 90-ton chlorine tank car can spread out at a lethal level 15 miles downwind by 4 miles wide.

[See below the Chlorine Institute plume map for the standard chlorine tank car, from the excellent Pamphlet 74, "Estimating the Area Affected by a Chlorine Release", 3rd Edition, 1998] [11]



MAP — Chlorine Institute Pamphlet 74, "Estimating the Area Impacted by a Chlorine Release", Edition 3, 1998, plume map diagram on p. 26. The standard 90-ton railcar of chlorine, shipped as a pressurized liquid, when released produces a toxic gas cloud 500 times bigger in volume than the tank car. The cold, heavier-than air cloud will generally move downhill and downwind, depending on the wind speed and weather, and may not disperse for hours. At 20 parts per million, it could quickly be fatal to thousands of people if they are unable to evacuate immediately. The US Naval Research Labs estimated in 2005 that **just one tank car** releasing its contents over a crowded urban event like the annual July 4th fireworks on the Mall in Washington DC [or a Chicago area major sporting event], **up to 100,000 could be killed or injured in ½ hour.**
In recent transportation attacks (9/11, Madrid, London) terrorists have hit several targets simultaneously. Four bombs killed 50 in Madrid; ten bombs killed 192 in London.

The standard chlorine Vulnerable Zone for the EJ&E rail line, consistent with federal guidance for emergency planners, is therefore a 15-mile zone on each side of the tracks, potentially impacting thousands. The actual direction of the gas cloud would depend on

the wind. The impacts from the release of even one rail car in an urban area would be an unprecedented toxic gas disaster for the US, whether the release is from accident or terrorism. The DEIS has not vividly **shown what the stakes are of the projected increase in hazmat risks.**

d. The DEIS should have assessed the existing government regulatory frameworks, which are sorely inadequate to handle rail hazmat issues.

Overall, the Chicago near-in suburbs, with 134 EJ&E at-grade crossings, are facing serious noise and pollution and mass transit impacts, hazardous cargo risks, and frequent daily blockages of school buses, emergency vehicles and commuters. But concerned residents have few regulatory or legal levers to pull. Chicago area Congressional legislators, backed up by the Chairman of the House Transportation and Infrastructure Committee, reacting to the EJ&E controversy, have **recognized this lack of oversight and regulatory power**, and they recently introduced HR 6707. [12] It would beef up STB's authority and responsibility to make overall decisions on the public benefits of railroad transactions. [See hearing before the House Transportation and Infrastructure Committee, September 9, 2008] **Some of the many other indications that the current regulatory framework is sorely lacking include the following:**

1. **The Surface Transportation Board (STB) is a weak economic regulator**: The STB, as it works on producing a Draft Environmental Impact Statement reviewing the EJ&E proposal's predictable environmental impacts, to its credit is also hosting numerous public meetings in communities along the EJ&E route, to get public inputs on the environmental issues. But if history is any guide, STB will then surely mandate that Canadian National pay for a very few token grade-crossing "mitigations" and approve the CN's planned purchase, leaving US taxpayers to pick up the tab for the remaining grade crossings, etc. that could mitigate the impacts. CN may face only minimal [somewhere between $40 and $150 million seems likely] mitigation costs. CN has repeatedly emphasized publicly that it is willing to pay for only a few grade separation projects, for example, while assertively citing precedents that the railroads usually only pay about 5% of the costs of such projects.

STB, as a vestige of the former pre-deregulation Interstate Commerce Commission, has **only one real statutory mandate** [13], to safeguard the competitive health and profitability of the remaining elements of the US rail system. Formerly with scores of rail companies and now dominated by virtual duopolies in the Eastern US (CSXT and Norfolk Southern) and in the Western US (Union Pacific and BNSF), the US rail system has only seven Class I railroads left, counting the two Canadian railways which operate extensively in the US. Chemical shippers, for one important set of actors, reportedly feel that STB is almost always biased in favor of the railroads vs. shipper interests, so that a recent "very tiny victory" that DuPont Chemicals won in front of the board was hailed by some as a hopeful sign of a possible STB turnaround towards a more balanced stance.

STB has a relatively new tacked-on role, a NEPA-mandated environmental review of railroad proposals for mergers and acquisitions, the little red caboose to the STB train of promoting healthy railroads. STB is not an environmental agency with plentiful resources and long experience in weighing and regulating on railroad-related environmental issues. Some experts suggest that the STB does a Draft Environmental Impact Statement precisely so it can legally identify serious environmental and public safety impacts which the railroad and agency will NOT be able nor be forced to mitigate, such as numerous grade crossing blockages and serious hazmat risks. Earlier in Reno, STB reportedly performed (instead of an EIS) an Environmental Assessment (EA) of a proposed railroad line through the city. But STB and railroad interests got stung on that occasion, in that local opponents took advantage of the fact that under the law an EA must propose measures that can mitigate impacts. The opponents litigated, imposing legal delays which forced the railroads to make major concessions including below-grade corridors through downtown Reno. By some accounts, since the Reno debacle, STB now does only an EIS, not an EA.

2. The Federal Railroad Administration (FRA) ostensibly has the authority and responsibility for rail safety and security issues.

After three decades of rail de-regulation the FRA is in a very weak position, often relying on "partnerships" with the railroads, often just asking the railroads voluntarily to do the right thing, and only very reluctantly resorting to regulation as a last resort (as recently, on the badly needed re-design of railroad poison gas tank cars).

Three recent major US fatal (chlorine and ammonia toxic gas cloud) railcar accidental releases (luckily in low-population areas) *have prompted industry and regulators to initiate efforts to beef up hazmat rail tank car strength, reduce speeds, etc. – providing clear indications of the inadequacy of the current regulatory regime to prevent railcar hazmat disasters.* [14]

The FRA has also been very understaffed in the area of rail hazmat security, and has been deferring to the US Department of Homeland Security in this area.

3. As an essential part of assessing hazmat risks, the DEIS should have included Vulnerable Zone maps with GIS data showing sensitive "receptor" ***facilities in the impact area*** **of a poison gas cloud, including schools, hospitals, nursing homes as the consequences of an event could be very high**

An alarmed Congress enacted two major Community Right-To-Know laws, in 1986 and 1990, after the 1984 Bhopal toxic gas disaster. *The Emergency Planning and Community Right to Know Act,* or EPCRA in 1986 and the *1990 Clean Air Act amendments*, Section 112 r. Congress's intent was to provide vivid chemical disaster risk information to the public and the media, so these could in turn pressure chemical facilities and transporters reduce risks.

The transportation sector of the chemical industry got itself exempted from these laws. But Federal agencies provided useful guidance [15] to 4100 new Local Emergency Planning Committees (LEPCs), including *an easy-to-use* standard method to assess local downwind toxic gas and explosion risks, *from both chemical facilities and hazmat transportation*, as an essential first step in crafting emergency response plans.

The most important information, and the core of the two federal laws, is the *Vulnerable Zones for indicating risks for chemical facilities and hazmat transportation lines.* If, as the Chlorine Institute estimates, the gas cloud from one 90 ton chlorine tank car can spread out at a lethal level 15 miles downwind by 4 miles wide [Chlorine Institute plume map 2 , from Pamphlet 74] then the standard Vulnerable Zone for the EJ&E rail line is a 15 mile zone on each side of the tracks. The actual direction would depend on the wind. The impacts from the release of even one tank car could be an unprecedented toxic gas disaster for the US, whether the release is from accident or terrorism.

4.The Bush Administration's new counter-terrorism rail hazmat routing regulations are not likely to protect the Chicago Metropolitan Area. The DEIS omits discussion of this matter.

A new Congressional law suggested re-routing around major target cities, but the Bush Administration regulations leaves railroads in control of routing and will not likely protect Chicago or any other city. [16] No federal agency makes decisions on major routing selections, since railroads were deregulated in 1980. Consequently, at least a few railroads and chemical shippers, worried about catastrophic risks and their own potentially "ruinous liability" for thousands of deaths and injuries, have on their own begun quietly skirting Chicago and perhaps other major target cities.

The 2007 Congressional **counter-terrorism hazmat re-routing law**, the well-intended **9/11 Commission Act, Section 1551**, is very weak, while recognizing that alternative non-target rail routes may be available to protect major target cities such as Chicago.

Railroads strenuously opposed local re-routing ordinances, initiating a major federal court battle, [17] and have dominated the shaping of the Bush Administration's new federal routing regulations [which made moot the federal lawsuits and preempted the local efforts]. The federal agencies gave a $5 million grant for developing methods for choosing urban rail routes – to the railroads. A Chicago pilot project was performed using the "routing tool" which the Association of American Railroads is developing with the grant, but the results have not been made public. Reportedly, however, the project illustrated the key flaw in the regulations. The exercise did not require any one railroad to shift its

dangerous cargoes in "interchange agreements" with other railroads in order to go around Chicago. Under the Bush Administration rule, railroads must consider only routes "over which they have authority to operate", so it is likely that no major target city will be protected.

As a way forward, STB could mandate that CN and state and local officials immediately initiate summit meetings, urgent discussions about voluntary efforts which CN could implement to re-route around major target cities, which could be immediately valuable in reducing risks.

e. The DEIS should have considered the likely catastrophic and non-catastrophic insurance impacts of changes in hazmat freight traffic along various alternative routes.

The Association of American Railroads has testified in Congress repeatedly that railroads even now have inadequate insurance to carry the most dangerous poison gas (TIH) cargoes through major cities:

"Indeed, railroads understand as well as anyone that hazmat safety is essential. This transportation carries extraordinary risks for railroads, and the revenue that highly-hazardous materials generate for railroads does not come close to covering the liability to railroads associated with this traffic. This is especially so for TIH. Even though TIH accounts for a small fraction of total rail traffic, the transport of TIH has the potential to be a "bet the company" activity for railroads.
Even with the extension last year of the Terrorism Risk Insurance Act, TIH contributes some 50 percent to the overall cost of railroad insurance. Even with this substantial expenditure, it is not possible to fully insure against a catastrophic incident involving TIH. Insurers are less and less willing to write insurance at all for these risks."
[Testimony of Edward R. Hamburger, p. 4, President of AAR before the US House Transportation and Infrastructure Committee, Subcommittee on Railroads, June 13, 2006]

The underlying reality driving the few quiet private re-routing decisions we know about which partially protect Chicago from poison gas railcar risks is the gaping void of **uncovered "ruinous liability", which shippers and railroads fear could reach $5 to $10 Billion in case of a serious terrorist attack using one or more tank cars.** Railroads have testified they can buy at most $1 billion in insurance, so they say they "bet the company" in urban transport of poison gas cargoes. They have gone to Congress, asking for a liability indemnification system like the nuclear industry has. Congress so far has declined. But right now citizens and institutions potentially impacted by a massive chemical railcar release have no coverage for compensation for damages.

In three days of contentious hearings before the STB in 2008 [18], Dow Chemical and other shippers testified that the railroads must continue to accept TIH cargoes as part of their "common carrier obligation". Dow also opposed the railroads' efforts to force

chemical shippers to accept transportation contracts by which shippers assume a large share of the liability by indemnifying the railroad even from damages caused by railroad negligence. This struggle will no doubt soon end up in protracted debate in the Congress.

The basic situation driving the need for Congressional action: the railroads think that under current US tort case law, they have all the huge liability for hazmat risks, and the chemical company shippers have none. **The railroads say they are trying to shift that liability – critics say, if possible all of it – to the shippers.**

Interestingly, perhaps the classic case in US transportation tort liability law was a railyard chemical release case from Chicago, the **"Indiana Harbor Belt Railroad" case**. [19] The initial court decision showed that some courts may indeed find it reasonable in future chemical release cases to sock chemical shippers with "strict liability" rulings, meaning that even without any shipper negligence, shippers could be held partially responsible for damages arising from their role in initiating the "ultra hazardous activity" of shipping potentially catastrophic cargoes through major cities. The ultimate court result was favorable to shippers, however, in that it rejected the strict liability theory and left liability with the railroads, if negligent, because of their close operational control over the shipments.

Investors in chemical shippers and railroads are, along with at-risk citizens, also kept in the dark regarding their companies' huge exposure to uninsured risks, because of what experts say are inadequate federal standards on corporate disclosure of outstanding liabilities.

II. Detailed Methodological Notes:

1. STB seems wholly dependent on CN and EJ&E for information on hazmat flows. There is no mention of use of its own annual Waybill Sample. p. 3.2-6

STB 3.2-10 has aggregate numbers on HMT total carloads, cars per day, etc. on the EJ&E rail line segments (17 total segments) and CN rail line segments (23 total segments)
But the data tables lump together all hazmat cargoes, potentially including "Wheelchairs, electric, with batteries" [placard #3171] and "Chlorine" [placard # 1017] which obscures any serious risks.

2. The DEIS says "SEA has focused not only on hazardous materials transportation, but also on emergency response capabilities to address a transportation incident (hazardous materials release)" 3.2-12 and p. 4.2-28 shows **SEA's conclusion: "SEA also considered the existence of <u>strong</u> emergency response capabilities in the project area [the EJ&E line communities]." No evidence is provided for this assessment.**

Only one page (3.2-12) discusses public sector ER capabilities. It cites the EPCRA law and the work of LEPCs, but only in terms of their "responsibilities and objectives, to "help ensure that localities are prepared …by: conducting annual exercises, developing a

plan," etc. It also cites "a variety of emergency response resources are available" in case of incident on rail line or yard, and cites the existence of hazmat teams, coordination with industry, etc., again with no assessment of effectiveness. Beginning on p. 3.2-13 DEIS also cites (for 3 ½ pages) "Emergency Management Capabilities of the Railroads" as if these were substantial and reliable, but with no assessment of these.
In fact a recent federal court decision, Trepanier v. Ryan, et al, was necessary to force the Cook County (suburban) LEPC to do an emergency plan as required by the EPCRA law and to allow local citizens to attend the meetings and ask questions.

3. Mitigations: on p. 6-4, in a list of Voluntary Mitigations (VMs) (VM 8- VM15): "Hazardous Materials Transportation", and also in the 8 STB-suggested VMs, repeatedly emphasis is on "compliance" with current laws and industry codes. [cf. ES-27 list of voluntary mitigations and ES-38, 39 for STB-suggested additional hazmat-related mitigations]

None of these VMs are quantified or verifiable under any specified accountability systems. The items on the lists of voluntary and STB-suggested mitigations seem in fact to imply serious shortcomings in the current regulatory programs and local emergency response capabilities that the DEIS otherwise would like to assume are "strong". Outside existing laws (and their extremely skimpy enforcement by existing understaffed federal and state agencies), none of these VMs are clearly enforceable in practice.

None of the Voluntary or STB-suggested mitigations rely on the Right to Know institutions from 1986 and 1990 Congressional legislation [from which railroads and truckers got themselves exempted]. But the STB could order CN to fund an assessment and beefing up of local emergency planning and response capabilities. In view of the failure of LEPCs to do honest risk communication, STB might also mandate that CN communicate to local residents along both rail corridors some vivid Worst Case Scenarios and Vulnerable Zones, showing the exposure of sensitive populations and iconic institutions to the most serious hazmat release risks.

4. Limitations in the time frames and scope of the analysis. p. 4.2-5 DEIS estimates a rise in accidents along the EJ&E line and a decrease along the CN downtown line. DEIS uses a very small time frame for its historical accident study, 2003-2007 using five-year Rolling Averages. On *p. C-7* DEIS indicates study of a very short 5 year time frame for historical accidents, only for CN and EJ&E , with the only wider search for rail hazmat spills "along similar, low-speed tracks operated by CN".

5. In Appendix C (p. C-4, 5) SEA says it considered but does not actually show (by EJ&E and CN rail segments) any comparisons of the most relevant safety features of the existing or future configurations of the EJ&E and CN lines: track quality, speed limits, etc.

6. p. 4.2-28 In its introduction to its "Methodology" discussion, SEA conflates the terms "risk [of a release of hazardous materials]" with "Potential for a release".

But in the hazmat release prevention and emergency response planning professions, "Risk = Consequence x (multiplied by) Probability"

SEA focuses *almost entirely on probability*, with a mix of data provided by Applicants and FRA statistics and historical data.

7. In assessing the impact of its estimated changes in hazmat cargoes along the two lines, SEA adopted a measure borrowed from the railroad industry's trade association [the Association of American Railroads, AAR], "whether a rail line segment would become either a new Key Route or a Major Key Route [a SEA-invented term] due to the Proposed Action." This Key Route category of rail line would under voluntary AAR guidelines need extra safety measures. p. 4.2-30

"4.2.5.4 Key Route Analysis
SEA analysis showed that currently, with three exceptions,[13] hazardous materials are transported on all of the rail line segments in the Study Area. SEA evaluated whether increases in the transport of hazardous materials on rail line segments that would result from the Proposed Action might increase to a level severe enough to warrant imposing mitigation measures to improve safety and protect human health, and what SEA's potential mitigation might be. As part of its analysis, SEA determined whether a rail line segment would become either a new Key Route[14] or a Major Key Route[15] due to the Proposed Action.
SEA determined that twelve EJ&E segments and 24 CN segments are currently Key Routes; 2 EJ&E segments and 23 CN segments are currently Major Key Routes as shown in Table 4.2-20 below.
Under the Proposed Action, the number of Major Key Routes on the EJ&E would increase to 14; the number of Major Key Routes on CN would decrease from 23 to 3.

Note 14 Key Route is a designation the Association of American Railroads developed to identify routes that carry more than 10,000 carloads of hazardous materials per year and thus warrant additional safety measures. Key Route practices include requirements to place defective-bearing detectors a maximum of 40 miles apart, (or an equivalent level of protection), the use of rail defect detection cars to inspect main track and sidings (or perform an equivalent level of inspection) no less than twice a year, use of track-geometry inspection cars to inspect main track and sidings (or perform an equivalent level of inspection) no less than once per year, and use of FRA Class 2 or better track for meeting and passing key trains.
Note 15 Major Key Route is a term SEA developed to identify rail line segments where the volume of hazardous materials transported would exceed 20,000 carloads per year and thus warrant greater safety measures than Key Routes."

STB's SEA does not seem to have gotten or relied on information from the railroads about Key Routes:
See C-6 " SEA made a preliminary determination of routes that would be designated key routes and these are included in the analysis. If proposed routes would not warrant key route designation (defined in AAR's Circular OT-55-B Criterion as 10,000 annual carloads), no further analysis will be conducted."

8. SEA has shown the estimated shift of hazmat cargoes from the downtown CN lines to the proposed EJ&E project line, with dramatic shifts estimated upward in the EJ&E communities and corresponding downward shifts in the CN downtown line communities. p. 4.2-34, 35. But it did not show track class, train speeds or any other safety factors varying along the lines corresponding to the quantity or quality of hazmat carried. SEA did not mandate any special safety measures for the "Major Key Routes" segments it identified in the DEIS.

9. **SEA's analysis of historical accident data is very limited**: It deals with one year only (2007) for all US accidents (2800 total), with the table designed to show that CN and EJ&E are a tiny percentage of those. (p. 4.2-32, 33,34) And the CN and EJ&E historical accident data is only for 5 years: 2003-2007. 4.2-34: SEA's analysis focuses first on the probability of a hazmat release. And it shows it to be very low. The analysis table does also show that the probability of a release will dramatically increase in the EJ&E communities and decrease correspondingly in the downtown CN line communities.

SEA dismisses the probability of any **serious** hazmat releases. P. 4.2-35 On the consequences of hazmat releases, SEA notes only a small number of relatively small hazmat incidents (1-14,000 gallons, none of significant poison gas hazard cargoes) between the very short time frame of 2003-2007. All had quite minimal consequences.

4.2.5.7 Impact Analysis – Consequences of Release Historical Impacts
According to the Pipeline and Hazardous Material Safety Administration (PHMSA) Database, CN reported a total of 85 hazardous material incidents in the Chicago metropolitan area (Lake, Cook, DuPage, and Will counties in Illinois and Lake County, Indiana) from 2003 to 2007. Within this same area and timeframe, EJ&E reported 7 hazardous material incidents. These are incidents which were reported to the National Response Center and state and local authorities in accordance with 49 CFR 171.15. Of these incidents, 84 of the CN reported incidents occurred in Cook County, Illinois and one occurred in Lake County, Illinois. All 7 of the EJ&E-reported incidents occurred in Will County, Illinois. No incidents were reported by CN or EJ&E in DuPage County, Illinois or Lake County, Indiana from 2003 to 2007.)
PHMSA considers only 6 of the reported incidents to be serious.

This STB minimization of potential <u>consequences</u> violates the most basic principle of post-Bhopal US risk management: risk managers must calculate those risks and educate stakeholders about very the serious potential consequences, including Worst Case Scenarios, in order to promote implementation of appropriate risk reduction measures.

The DEIS has nothing about plume maps or Vulnerable Zones, either along main rail lines or around rail yards:

4.2-33 Rail Yard Activity
SEA also evaluated existing and Proposed Action conditions at Kirk Yard and East Joliet Yard and at CN's Markham, Glenn, and Hawthorne yards. EJ&E Kirk and East Joliet yards would experience increases in the volume of rail activity as a result of the Proposed Action. SEA expects that the increased activity at those two yards could result in more derailments of cars carrying hazardous materials, because of the increased hazardous materials traffic, as shown in Table 4.2-23, above.
SEA believes that the decreased switching activity at the CN yards at Markham, Glenn, and Hawthorne would result in fewer hazardous material cars being derailed, and hence, fewer potential releases of hazardous materials.

10. SEA's unsupported <u>assumptions</u>, along with its steadfast ignoring of serious historical or potential hazmat releases, are critical in allowing the DEIS to discount any real risks of serious hazmat releases:

Proposed Action (p. 4.2-37)

SEA assumed *that a release of hazardous materials into the environment as a result of a rail accident likely would lead to* ***human exposure for a relatively short time****. That is because the duration of a release is limited by the volume in the rail car or rail cars involved in the accident. Typically, the scene would be contained and cleaned within a relatively short time, usually within 24 hours, by emergency response teams,* ***who would know the precise point of release.*** *Moreover, the release of any toxicity would be addressed by teams on the local, state, and Federal levels responsible for the clean-up of such incidents. Therefore, SEA's analysis* ***focused on acute toxicity (specifically, toxicity typically associated with short-term exposure****, which results in toxic effects that are typically experienced immediately or within days of exposure), rather than on chronic toxicity (that is, toxicity typically resulting from repeated or long-term exposure, which results in toxic effects that are typically detected after months or years of exposure).....*

In fact, SEA ignored all the recent evidence of fatal hazmat railcar toxic releases which have caused such anxiety after 9/11.

*... **SEA anticipates** that a release of hazardous materials into the environment could potentially lead to environmental exposure of* ***relatively short duration*** *based on the fact that the release would be contained/remediated within a relatively short time as required by local, state, and Federal requirements. A release of hazardous materials routinely triggers a notification to the Illinois EPA within 24 hours. In the notification process, local authorities are alerted as a matter of course. The Federal authorities typically defer to the state EPA on these issues. Also, the duration of a release is limited by the volume in the railcar.*

SEA (only once and only briefly) mentions populations and population density, in the absence of any effort to describe the potential massive consequences from serious releases to these populations:

For the purposes of the assessment of potential health consequences, SEA considered the total population close to the CN and EJ&E line segments. ***SEA found that the total population in the census block tracts along the EJ&E arc (Leithton to Gary) is 337,767. SEA also found that the population in the census block tracts along the five CN lines inside the EJ&E arc is 903,719.*** *SEA also identified the most densely populated area along each particular segment on each route. For the EJ&E rail line, SEA noted that the most densely populated areas along the segments extending from Leithton to Gary are located in Park Forest (4,708 residents per square mile) and North Chicago (4,641 residents per square mile).*

11. In its "Conclusion" to the hazardous materials discussion in Chapter 4, SEA finally and briefly mentions the safety benefit of moving hazmat shipments to less populated areas, but only in the context of comparing the downtown Chicago routes to the EJ&E communities in a way that supports the Project:

(p. 4.2-38) SEA concluded that hazardous material releases have historically been, and should continue to be, extremely rare because of existing regulatory requirements and best management practices that prevent circumstances that might otherwise result in a release, and regulations and procedures that typically lead to prompt response by the appropriate authorities. *SEA evaluated whether the Proposed Action would increase the likelihood of a hazardous materials release. SEA concluded that* ***there would be a potential increase in the***

possibility of a release because of increased train miles resulting from the longer route, and more carloads of hazardous materials, on the EJ&E rail line. *But even on the EJ&E rail line, the possibility of a hazardous materials release would remain remote because of the regulatory and other safeguards already in place. Moreover, there would be a substantial reduction in the risk of a release on the CN rail lines as a result of the Proposed Action because of the downward redistribution of railroad traffic. In addition,* ***the CN rail lines tend to be in more densely populated areas than the areas along the EJ&E rail line****, where hazardous materials transportation would increase.*
Finally, SEA notes that under the No-Action Alternative, hazardous materials take more time to move through Chicago on the CN rail lines than they would under the Proposed Action, thus continuing to potentially expose people in the vicinity of the CN rail lines to risk for a longer period of time.

12. The STB's own regulations apparently do not require railroad Applicants to provide information to the Board on:

- Terrorism risks
- Consequences of a hazmat release

See *p. C-7:*
"SEA conducted the analyses in accordance with the Board's regulation at 49 CFR 1105.7 (e)(7), which requires a description of the effects of the Proposed Action on public health and safety.
Because the Proposed Action would result in the transport of hazardous materials, this regulation requires the Applicants to provide the following information to the Board:
• Hazardous materials types and quantities
• Frequency of service
• Chemicals being transported that, if mixed, could react to form more hazardous compounds or conditions
• Safety practices (including any speed restrictions)
• Applicant safety record on derailments, accidents, and hazardous materials spills
• Contingency plans to address accidental hazardous materials releases
• Likelihood of an accidental release of hazardous materials
• Ozone-depleting chemicals"

13. STB did many calculations, but steadfastly ignored any summary or calculations of hazmat release consequences:

(p. C-7) "Railroads must report to DOT on Form 5800.1 any unintentional release of hazardous materials that meets the criteria set forth in 49 CFR 171.16. DOT compiles the forms to create the HMIRS database, which includes the following information: 1) when and where a hazardous materials release occurred, 2) the substance and quantity released, and 3) the source of the release.
SEA reviewed a list of the HMIRS database for entries involving CN and EJ&E, including any U.S. operating subsidiaries, for the most recent 5-year period and summarized that information in tabular form.

SEA also prepared a list of and assessed the hazardous materials being transported. If the proposed route warrants key route status, or if requested to do so by the Board, SEA performed several hazardous materials transport calculations as follows:

The DEIS then lists three pages(C-8, 9, 10) of factors for detailed calculations it performed to estimate hazmat release probabilities: hazmat railcar flow volumes, derailments, release rates, releases per mile, cars switched, etc. Nothing here deals with consequences.

14. On page C- 10,11: DEIS's listed "Reference Sources" are quite narrow, given SEA's assertions of major reliance on the existence of "strong" local emergency planning capabilities. The sources do not indicate any SEA interviews with emergency responders or rail workers. There is no mention of even any review of documents relevant for assessment of rail hazmat risks:

- Local Emergency Planning Committee plans
- State Emergency Response Commission evaluations of the performance of the LEPCs
- Tier II forms and RMP documents (including Worst Case Scenario hazmat relaease in Off-Site Consquence Analyses) submitted to the LEPCs by the local hazmat shippers
- Lessons learned reports for any historical hazmat releases by any railroad, by any emergency response agency.
- Federal NTSB reports of serious historical rail hazmat accidents and releases
- Historical data on emergency response to significant railcar hazmat releases, locally and nationally (e.g., statements from the US Chemical Safety Board).

III. Some specific questions the DEIS should have considered, regarding BOTH the existing freight rail hazmat situation — and the anticipated changes due to the proposed EJ&E acquisition :

a. What percentage of the most dangerous classes of hazmat" rail traffic into Metro Chicago, and along the CN and EJ&E rail segments, is through shipments with no origin or destination in the metro Chicago area? [* "Most dangerous classes of hazmat shipments" – see the classes (including radioactive cargoes) cited in the Congressional re-routing bill HR 1, signed by the President on August 3, 2007.]

b. Given the US Department of Homeland Security's concerns about hazmat rail car storage vulnerability, how long (range of hours or days) do rail cars of the most dangerous classes of hazmat sit ("dwell time") on sidings or in urban railyards in the Chicago metro area?

c. What are the existing plausible alternative rail routes to the west and south that could take through hazmat cargoes well around the Metro Chicago target area?

d. What are the relative risks, separately considering probabilities and consequences, of accidental or terrorism-caused rail hazmat releases of the most dangerous classes of

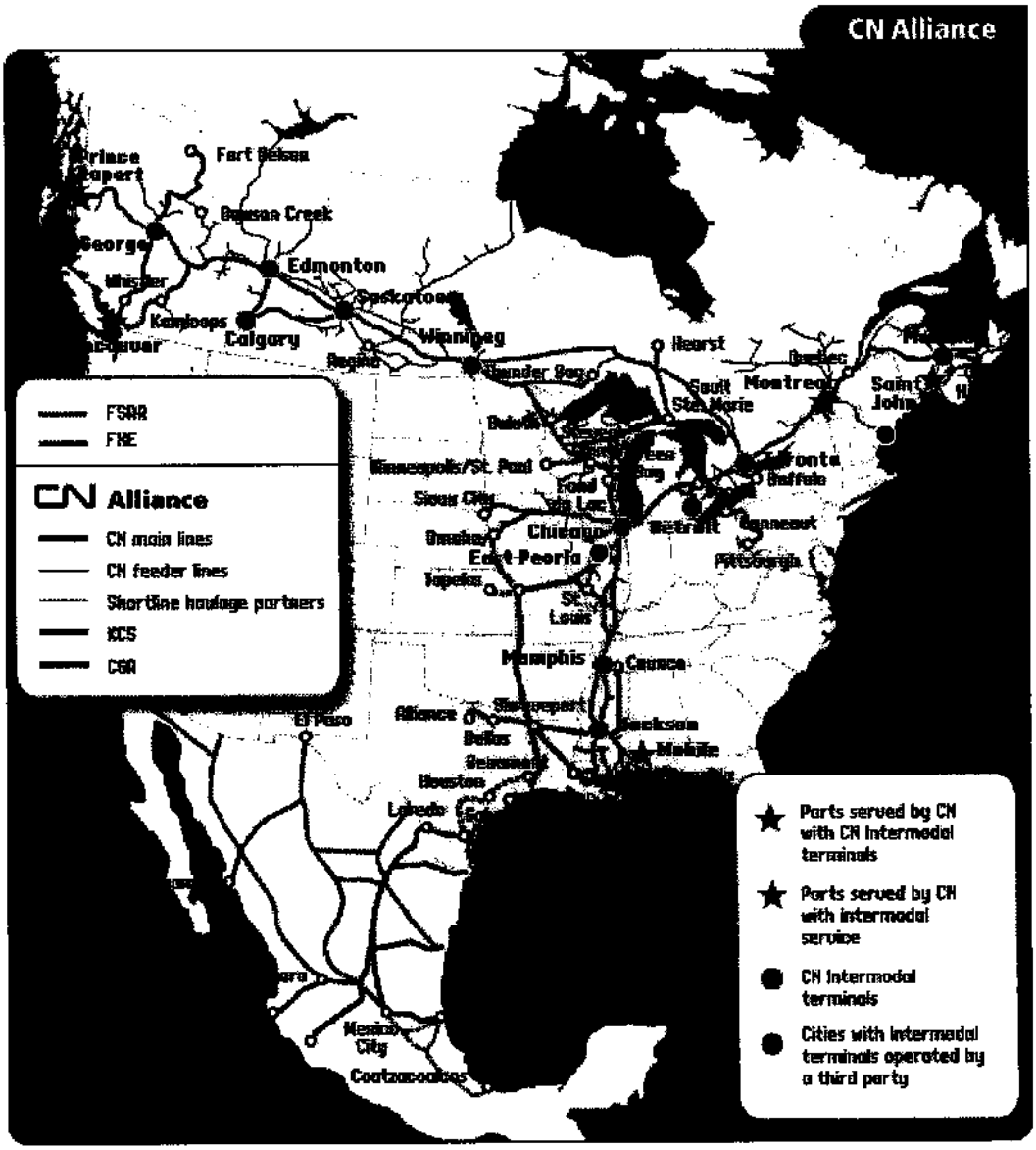
hazmat shipments according to estimates from the industry (e.g., the Chlorine Institute Pamphlet 74) and federal agencies (e.g., the US Naval Research Labs) – [i.e., NOT using the wholly inadequate estimates in the US DOT Emergency Response Guidebook, which are for the first few minutes only of a release] along the downtown route, the EJ&E route, and a circumferential route well outside the Chicago area?

e. Given the demonstrably inadequate emergency response efforts in our most recent serious rail hazmat fatal releases (chlorine gas) in Graniteville SC and near San Antonio TX, and the 2006 testimony from the former head of the US Chemical Safety Board that US communities are woefully unprepared for significant chemical releases, what are the realistic chances for an effective emergency response in the Chicago Metro area that could prevent thousands of casualties in case of a serious, multi-railcar release of chlorine or other TIH (Toxic by Inhalation) rail cargo?

IV. CONCLUDING OBSERVATIONS:

CN's aim is to bring in a huge increase in Asian consumer freight from the Port of Prince Rupert [7], their big new sole-access port in Canada and the closest to Asia, across Canada "to the US heartland", meaning to rail hubs in Memphis and New Orleans, and other CN freight from far-flung cities in Canada and the US, **by moving nearly all of it through Chicago's already congested rail infrastructure. CN has an extensive rail network in North America, with a narrow neck in Chicago, but with no current all-CN connection through Chicago. [see map below of CN's rail network].**

CN's North American rail network, showing narrow neck through Chicago and usefulness to CN of purchasing the EJ&E



END NOTES:

1. For US STB's news release on availability of the DEIS: http://www.stb.dot.gov/__85256593004F576F.nsf/0/3D965D70CBED6BF58525749100457581?OpenDocument

The Draft EIS is available for viewing and downloading via the Board's Web site at http://www.stb.dot.gov, under "E-Library," then under "Decisions & Notices," beneath the date "7/25/08." For further information on the proceeding, access the project Web site at www.stbfinancedocket35087.com Friends of the Earth earlier filed a Comment critiquing the woefully inadequate proposed Scope of the STB's EIS: http://www.volz.org/DocumentView.asp?DID=670

2. The Center for American Progress report on the national debate on hazmat re-routing, "New Strategies to Protect America: Putting Rail Security on the Right Track", by Friends of the Earth's Fred Millar, was discussed in a Center public forum: http://www.americanprogress.org/events/2005/4/b593305ct645303.html

For national coverage on the "terror trains" issue, see the PBS NOW! report on re-routing: The national report, while excellent, unfortunately does not mention the 11 target cities which have introduced WMD re-routing ordinances.
http://www.pbs.org/now/shows/226/index.html
Click on "Toxic Trains" report on June 30, 2006.

For mapping rail routes, see DeskMap Systems for a full line of desk and wall rail route maps: http://www.deskmap.com/railroad.html
Also Railway Station Productions, Inc. for an interactive CD of North American rail routes: http://www.railwaystation.com/products.html

3. http://www.houstonarchitecture.info/haif/index.php?showtopic=983

4. http://www.stb.dot.gov/stb/docs/BayportFEIS_final.pdf

5. At least 25 major investigative TV news reports have helped shape the public's concerns about urban toxic gas shipments. They have vividly shown the lack of rail security and often used computer simulation of toxic gas dispersion over the target city or vulnerable zones maps to illustrate the risks. For examples, see:

Kansas City MO: http://www.kctv.com/ Look for Ash-Har Quaraisi's investigative reports from Sept 5 (4 mins) and Sept 6 (6 mins) 2006 on toxic trains through Kansas City. Features vivid graphic simulating toxic gas spread, interviews with fire officials

pessimistic about effectiveness of emergency response, and railroad employees critical of rail security, whose identity is disguised to prevent "retribution."
Miami FL: Investigative journalism pieces (4 total) by Mike Kirsch on CBS WFOR-TV http://cbs4.com/iteam/local_story_017185318.html

New York City: October 2005 2-part series by WNBC-TV. Highlights include interviews with consultants and with concerned officials: NJ Senator/Governor Corzine, NYC Police Commissioner, Rep. Peter King (R-NY) Chair of House Homeland Security Committee, with visual showing 7-mile radius for NU railyard tank car release impacting nearby Manhattan/NYC. Streaming video available at:
http://www.globalsecurityrm.com/cheminsec.html

Buffalo NY: WIVB Ch 4 two-part series on "Toxic Trains" and "Niagara Falls" -- July 5 and July 6 2006 by reporter Luke Moretti: interviews with local officials, railroad, and chemical facility manager. Clear plume map depiction for chlorine gas, using Chlorine Institute dispersion data. http://www.wivb.com/Global/story.asp?S=5124919 Niagara Falls and Chemical Plants, Railcars http://www.wivb.com/Global/story.asp?S=5120779 Toxic Trains

Nashville TN Channel 5 CBS WTVF (Reporter Phil Williams) aired 3-part series, Nov 13 and 14: First part was focused on disaster risk posed by downtown sewage plant with 4 chlorine tank cars parked in open air, accessible to intruders. Interviews with city sewage plant manager, security guard; use of federal and public interest group documents and toxic cloud simulations over the city.
http://www.newschannel5.com/Global/story.asp?S=5675282
Part 2 of 3: City has neither car barn over chlorine tank cars, not has asked for funding for this. Metro Councilmembers demand why no safer alternative chemical is being used.
http://www.newschannel5.com/Global/story.asp?S=5681013
Part 3 of 3: Transportation of WMD chemical rail cargoes, especially "in the shadow of the State Capitol". No security. Helicopter footage picks out chlorine tank cars, ammonia, LPG. Footage from railroads' testimony in US Congress saying they have inadequate insurance for WMD cargoes. State official says terrorists won't know which tank cars are empty.
http://www.newschannel5.com/Global/story.asp?S=5682416

6. The Chicago Tribune's account of the hearing: http://www.chicagotribune.com/news/local/chi-050627hazrail,1,3499787.story?coll=chi-news-hed

7. http://www.cn.ca/specialized/ports_docks/prince_rupert/en_KFPortsPrinceRupert.shtml

8. See the State of Nevada governor's Nuclear Waste Projects Office for a full set of documents related to US DOE's plans for massive nuclear waste shipment across America, including new documents showing likely routes through the Chicago Metro Area. http://www.state.nv.us/nucwaste/trans.htm

9. The English summary of the book 'Onder druk wordt alles vloeibaar; een geschiedenis van het chloortransport in Nederland' which means: 'Everything flows under pressure; a history of chlorine transportation in the Netherlands' is at www.vrom.nl/externeveiligheid. Surf to the international site 'external safety' http://international.vrom.nl/docs/internationaal/Chlorine%20Transportation.pdf

10. See detailed discussions recognizing the need for better federal regulation in the ongoing and just-completed federal rulemakings on rail safety and security in : www.regulations.gov.

The hazmat rail routing rule is Docket # RPHSA-RSPA-2004-18730, the railcar storage rulemaking is Docket # PHMSA-RSPA-2002-12064, the new DOT proposed rule on improving rail tank car safety is at FRA-2006-25169, and the Supplemental Special Action Items are in Docket # TSA-2008-0013.
For Friends of the Earth's critique of the new rule:
http://action.foe.org/pressRelease.jsp?press_release_KEY=362&t=2007_Smarter-Transportation.dwt

11. To purchase the publication from the Chlorine Institute: http://www.chlorineinstitute.org/Bookstore/ProductDetail.cfm?ItemNumber=2303

12. For HR 6707: http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=110_cong_bills&docid=f:h6707ih.txt.pdf

13. From the STB website:

"FAQs: What is the STB's process for authorizing railroad consolidations and acquisitions of control?

"When 2 or more rail carriers seek to consolidate – whether through merger or common control – they must obtain prior STB approval under 49 U.S.C. 11323-25 and 49 CFR Part 1180. In the case of the proposed acquisition of the Elgin, Joliet and Eastern Railway Company (EJ&E) (a Class II railroad) by the Canadian National Railway Company and Grand Trunk Corporation (CN) (a Class I railroad), the STB must approve the acquisition unless it finds (1) as a result of the transaction, there is likely to be substantial lessening of competition, creation of a monopoly, or restraint of trade in freight surface transportation in any region of the United States, and (2) the anti-competitive effects of the transaction outweigh the public interest in meeting significant transportation needs (49 U.S.C. 11324(d)).
After an application for STB approval is filed, the STB sets a procedural schedule that gives interested parties time to submit information on any transportation issues and for the applicant to reply. The STB also prepares environmental analyses and documentation to meet its obligations under environmental laws. The STB then considers the entire record (including all comments received on environmental or transportation issues), in deciding whether to authorize the acquisition application as proposed, deny the proposal, or approve the proposal with conditions imposed to mitigate potential safety or environmental concerns."

14. **Recent well-publicized major toxic gas rail accidents** include Graniteville SC, Macdona TX, Minot ND and Alberton MT – all luckily in rural or small town

locales. See: Toledo, OH WTVG 13 ABC Nov 3, 2006 Reporter Ronnie Dahl: ABC footage from Graniteville SC chlorine gas disaster, interviews with rail workers, and with Ohio State Rep. Bob Hagan, former locomotive engineer, who has introduced rail security bill (working on a re-routing bill). Video at: http://abclocal.go.com/wtvg/story?section=local&id=4723624

15. US EPA's excellent EPCRA guidance documents: http://www.epa.gov/emergencies/guidance.htm#epcra and corresponding Clean Air Act guidance: http://www.epa.gov/emergencies/docs/chem/oca-all.pdf

16. www.baltimoresun.com/news/nation/bal-te.hazard25may25,0,4651992.story The FRA's summary of its rule: http://www.fra.dot.gov/downloads/PubAffairs/RailHazmatRoutingIFRBackgrounder041608.pdf

17. The Washington DC Office of Attorney General's website has a full set of trial documents from the Federal court proceedings on the DC hazmat re-routing ordinance, at www.oag.dc.gov. Search under "CSX Transportation v. Washington, DC".
    Exhibit #5: Dr. Jay Boris US Naval Research Labs, results of dispersion model for chlorine tank car release in crowded urban event in Washington DC: http://occ.dc.gov/occ/frames.asp?doc=/occ/lib/occ/information/hazmat/73514.pdf
    Exhibit #6: Dr. Ted Glickman, on availability in several metropolitan areas of "catastrophe avoidance routing" for rail hazmat shipments: http://occ.dc.gov/occ/frames.asp?doc=/occ/lib/occ/information/hazmat/73515.pdf

18. http://www.stb.dot.gov/TransAndStatements.nsf/8740c718e33d774e85256dd500572ae5/353f275b58c5f6c7852574b900693f1c?OpenDocument
http://www.stb.dot.gov/TransAndStatements.nsf/8740c718e33d774e85256dd500572ae5/8b4a6296b0c24cc885257486005f6fb9?OpenDocument
http://www.stb.dot.gov/TransAndStatements.nsf/8740c718e33d774e85256dd500572ae5/0ba1235cd453bb6485257486005ea396?OpenDocument

19. http://www.harvardlawreview.org/issues/120/march07/rosenberg.pdf

APPENDIX A:
washingtonpost.com

We Could Breathe Easier

The government must increase the security of toxic chemicals in transit.

By Richard A. Falkenrath

Tuesday, March 29, 2005; Page A15

The basic strategy al Qaeda used on Sept. 11, 2001, was to strike a common, poorly secured commercial system in a way that would cause catastrophic secondary effects. The terrorists did a better job of identifying the vulnerability associated with fully fueled commercial airliners than the government did -- and they exploited this vulnerability to terrible effect. Now, because of the work of the Transportation Security Administration, commercial aircraft in the United States are all but impossible to hijack.

But the terrorist is an adaptive enemy. One central question in homeland security is whether terrorists will again locate a catastrophic civilian vulnerability before the government gets around to addressing it.

There are an infinite number of potential targets in America that, if attacked, could result in hundreds of civilian casualties. The number of potential targets that could result in *thousands* of civilian casualties is, however, finite and knowable. In the federal government, the Department of Homeland Security is responsible for identifying these

potentially catastrophic targets, analyzing their security schemes and taking action if the security arrangements are deficient.

It is in general a bad idea to call attention to America's most serious civilian vulnerabilities. Government officials should never do so and should not be asked to. Private citizens should do so with care, and only when the government fails to act.

Of the all the various remaining civilian vulnerabilities, one stands alone as uniquely deadly, pervasive and susceptible to terrorist attack: industrial chemicals that are toxic when inhaled, such as chlorine, ammonia, phosgene, methyl bromide, and hydrochloric and various other acids. These chemicals, several of which are identical to those used as weapons on the Western Front during World War I, are routinely shipped through and stored near population centers in vast quantities, in many cases with no security whatsoever.

A cleverly designed terrorist attack against such a chemical target would be no more difficult to perpetrate than were the Sept. 11 attacks. The loss of life could easily equal that which occurred on Sept. 11 -- and might even exceed it. I am aware of no other category of potential terrorist targets that presents as great a danger as toxic industrial chemicals.

The federal government has the authority to regulate the security of chemicals as they are being transported on roads, railways and waterways. With only one minor exception, the administration has not exercised this authority in any substantial way since Sept. 11. There has been no meaningful improvement in the security of these chemicals moving through our population centers.

In a desperate step, the D.C. council recently voted to ban hazardous material shipments through downtown Washington. This ordinance is clearly good for Washington, but it is bad for the other parts of the country that will absorb the diverted chemical loads. Furthermore, its economic burden falls principally on CSX Corp., the company that owns the two rail lines through downtown Washington. CSX is suing to block implementation of the ordinance. The federal government is supporting CSX's effort, an awkward position for a security-conscious administration that has so far failed to mandate a systematic, nationwide reduction in the vulnerability of this sector.

The administration can and should act immediately to enhance the security of toxic chemicals in transit nationwide; no new legislation is required. Specifically, the departments of Homeland Security and Transportation should promulgate regulations that will, over time, require chemical shippers to track the movement of all hazardous chemicals electronically; to report this data to DHS in real time; to use fingerprint-based access controls for all chemical conveyances; to adopt container signs that do not reveal the contents to most observers; to perform rigorous background checks on all employees; to strengthen the physical resilience of chemical containers; to reduce chemical loads; to ship decoy containers alongside filled containers; and to install perimeter security at loading and switching stations. Violators should suffer harsh civil and criminal penalties.

But the federal government does not have authority to regulate the security measures inside chemical plants and storage facilities. President Bush has twice called on Congress to pass legislation granting the Department of Homeland Security this authority. The 108th Congress declined to do so. It is often alleged -- incorrectly -- that lobbying by the chemical industry was behind Congress's inaction. The real reasons had to do with the full agendas of the committees involved; the administration's competing legislative priorities; and the obscure, esoteric and theoretical nature of the issue.

The voluntary security enhancements many of the larger chemical firms have implemented -- in some cases with assistance from the Department of Homeland Security -- are a step in the right direction but are insufficient. Congress should promptly grant powerful authority to regulate chemical-plant security to that department as the president has requested.

There is no silver bullet to improving the security of chemicals that are toxic when inhaled. A layered, nationwide approach is required. It is right and proper for the government to require industries to take on the security costs of their activities. The immediate cost of these regulations would be borne by the chemical industry. Over time, costs would be passed on to consumers, and the market would adjust to a new, more socially responsible equilibrium. The real losers would be al Qaeda and its successors.

The writer was deputy homeland security adviser to President Bush until May 2004. He is now a visiting fellow at the Brookings Institution and senior director of the Civitas Group, an advisory and investment services firm serving the homeland and national security markets.

APPENDIX B:

Union Pacific-CN routing will avoid Chicago

Wednesday, November 24, 2004
By: The JOURNAL of COMMERCE ONLINE

Pacific and Canadian National today announced an operating agreement designed to bypass congestion in Chicago.

The move is the latest in a series of "co-production" pacts as North American struggle with network and capacity issues.

The railroads currently exchange freight at major interchanges at Chicago, Superior, Wis., Salem, Ill., Memphis, Baton Rouge and, by way of Burlington Northern Santa Fe, Vancouver, British Columbia.

The new traffic patterns, to be put in place over the next three months, will consolidate and interchange traffic between Western Canada and Texas at Superior, "avoiding the Chicago

terminal and reducing handlings en route."

Wisconsin traffic between Texas and Arkansas will be interchanged at Salem in southern Illinois, rather than at Chicago.

Traffic between Eastern Canada and the southcentral U.S. will be interchanged at Memphis rather than Chicago.

The two railroads said the new routing agreement would improve transit times and asset utilization.

– Courtney Tower in Ottawa

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APPENDIX C:

Report attacks CN's approach to safety

(The following story by Scott Simpson appeared on the Vancouver Sun website on May 31, 2008.)

VANCOUVER, B.C. — A "culture of fear" at Canadian National Railway is making it difficult for employees to report safety violations that raise the risk of derailments and other accidents, a federal parliamentary committee says in a new report to the House of Commons.

The standing committee on transport says both the federal government and railways bear responsibility for a failure to meet safety standards that were implemented in 2001, and a consequent rise in major accidents since that time.

The committee has "serious concerns" about a slow and inadequate effort by Transport Canada and the railways it governs to take a more proactive approach to safety, despite a seven-year opportunity to take action.

CP Rail fares somewhat better than CN in the report. CP Rail gets only a bare passing grade, three out of five, compared to one out of five for rival CN when it comes to implementing the safety management standards that were introduced in an update to the Railway Safety Act in 2001.

The committee reported hearing from railway workers who said it was difficult to create a "safety culture" and worried about reprisals and disciplinary action if they voiced concerns.

"This was especially true in the case of CN rail, where employees stated they were working within a 'culture of fear,' the report says.

"While CP Rail was viewed as having a somewhat better approach to safety management, there was still concern that its safety record could be improved. The fear of discipline for reporting safety violations was viewed by railway employees as a major deterrent to reporting such

violations."

Teamsters Canada spokesman William Brehl said "CN and CP both" and most small short-line railways pose the same challenge to employees.

Brehl said in a telephone interview that Teamsters hope the report will force both government and the railways to make changes.

He said the committee "was pretty clear" in its findings.

"They want the stakeholders involved and they want this to end. They want a culture of safety and not a culture of fear," he said, adding that it should not be left to the companies and the federal government to make the system safer.

"Labour has to be involved. We are the guys out on the tracks. We know where the defects are. We know what has to be done in a lot of areas. We may not be the engineers who design the track and the track structure, but we know when it's failing and when it isn't."

The committee report arises out of an October 2006 decision to inquire into rail safety after a series of major accidents and derailments suggested an upward trend in main track accidents -- including a toxic chemical spill and subsequent fish kill in the Cheakamus River near Squamish after a CN derailment.

This is the second significant report on the subject in 2008.

Last March, after extensive consultations with stakeholders across Canada, an advisory panel to the Minister of Transport reported that the safety record of Canadian railways is among the best in North America -- but had shown insufficient improvement since the Railway Safety Act update.

The parliamentary committee report identifies fundamental institutional barriers to improved safety -- including a hands-off approach by Transport Canada, and a lack of effort by railways to implement a culture of safety among employees.

In particular the committee found that safety management systems were getting little more than lip service from railways -- and that Transport Canada was not successfully promoting those systems.

"We are of the opinion that, if more stringent oversight by Transport Canada had taken place, there might have been better results in implementing [safety management systems] and the railroads would have been further along in developing a safety culture than they are today," the standing committee reported.

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